

### Current Listing and Status of the Claims

Claims 1-20(cancelled)

Claim 21(previously added) A method of determining the effectiveness of a nutritional food supplement by measuring the free radical scavenging capability of specific antioxidants present in said nutritional food supplement.

Claim 22(previously added) A process for determining the effectiveness of a nutritional food supplement by measuring the free radical scavenging capability of specific antioxidants present in said nutritional food supplement, said process comprising the steps of:

introducing an organic dye reagent to a medium containing a free radical population to chemically tag the free radical population in said medium;

fluorometrically detecting and measuring the population of chemically tagged oxygen radicals in said medium;

introducing a nutritional formulation to said medium said nutritional formulation having specific antioxidant properties;

fluorometrically detecting and measuring the relative population of chemically tagged oxygen radicals in said medium; and

calculating the free radical scavenging efficiency of said nutritional formulation using chemically tagged oxygen radical population measurements.

Claim 23(previously added) The process of claim 22 wherein said organic dye reagent is 2-7 Dichlorofluorescein ( $H_2DCFDA$ ).

Claim 24(previously added) The process of claim 22 further comprising the step of incubating said medium with an oxygen catalyst promoter to increase oxidative activity before detecting and measuring the population of chemically tagged oxygen radicals in said medium.

Claim 25(previously added) The process of claim 24 wherein said organic dye reagent has a chemical composition that diffuses through a cell membrane.

Claim 26(previously added) The process of claim 24 wherein said oxygen catalyst promoter is from the group consisting of  $H_2O_2$ , peroxidase, transition metals, hydroxides and superoxides.

Claim 27(previously added) The process of claim 24 wherein said oxygen catalyst promoter is horseradish peroxidase.

Claim 28(previously added) An optical antioxidant sensing process for comparing the relative efficiency of a food-based antioxidant to an isolated form of the antioxidant comprising the steps of:

forming a control group comprising a medium containing a chemically tagged free radical population;

incubating a first portion of said medium with a sample of a food-based source nutritional formulation having a key antioxidant ingredient;

incubating a second portion of said medium with a sample of a nutritional supplement having said key antioxidant ingredient in isolated form;

fluorometrically measuring the free radical scavenging activity of said food-based source nutritional formulation in said first portion of said medium using an optical fiber sensor;

fluorometrically measuring the free radical scavenging activity of said nutritional supplement in said second portion of said medium using an optical fiber sensor; and

comparing the efficiency of said food-based key antioxidant and said isolated form of said key antioxidant by comparing the free radical scavenging activity measurements of said food-based source nutritional formulation having said key antioxidant ingredient and said nutritional supplement having said key antioxidant ingredient in isolated form.

Claim 29(previously added) The optical antioxidant sensing process of claim 28  
wherein said key antioxidant ingredient in isolated form is an isolated form of vitamin E.

Claim 30-36(withdrawn)